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Resistance Change in a Magnetic Field of Single Crystals of Bismuth

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Stewart, Morrow, and Skinner have shown that the diffraction peaks of organic liquids indicate a grouping of the molecules and that the Bragg Law approximates the spacings. The solution diffraction curves then indicate that the molecules of both constituents form a single type of group and that the spacing is determined by the proportion of the constituents present. The width of the curve may indicate that the grouping is less perfect than in the pure liquids. These conclusions are very similar to those found in the case of the diffraction by solid solution.

THE EFFECT OF PRESSURES UP TO 16,000 ATMOSPHERES UPON THE E. M. F. OF THE WESTON STANDARD CELL

THOMAS C. POULTER, CARTER RICHEY, ROBERT WILSON, JOHN FULTON

A variety of types of Weston standard cells were constructed and the electromotive force was found to increase with the pressure. The shape of the curve being effected somewhat by the material of which the cell case was constructed.

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RESISTANCE CHANGE IN A MAGNETIC FIELD OF SINGLE CRYSTALS OF BISMUTH

ROY A. NELSON AND G. R. WATSON

The work is a continuation of that of Schneider.[1] Crystals were made from several different samples of bismuth and by two methods. The fractional change in a longitudinal field of about 3,000 gauss is found to be a minimum for 0 orientation and a maximum for 90. The crystals, however, fall into two classes, the reason for which has not been determined. The supposition of any considerable fissures along the cleavage planes appears unlikely.

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1 Phys. Rev., vol. 31, p. 251, 1928.